



County of San Diego

HEALTH AND HUMAN SERVICES AGENCY

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Vital Records

Medical Director's Update for Base Station Physicians' Committee July, 2007

STEMI Update: First quarter data (January 16—March 31, 2007) confirm the success of the STEMI receiving system achieving great door-to-balloon times. There were 147 emergency 911 patients, of whom 122 (83%) went to the cardiac catheterization lab. Out of those, 79 had a PCI performed (65% of patients getting a catheterization, or 54% of 911 identified patients). The median door-to-balloon time (DTB) for patients getting a PCI was 67 minutes. This is much faster than DTB times reported before the system. Fast DTB times will translate into better outcomes for patients. The percentage of patients with a DTB time at 90 minutes or less was 81% overall. Everyone in the system should be proud of these numbers and the impact they have on patients.

Several suggestions were made at the last Cardiac Advisory Committee for improvements in the system. These include making sure a PPR and a copy of the 12-lead are left in the ED. The 12-lead should be marked with the patient's name or the run number. MICNs should be certain to document requested and nearest hospital if the closest STEMI receiving center is bypassed. There was also discussion about false positive EKGs and ways to reduce unnecessary activations.

We are looking for ways to reduce the number of overtriages resulting in unnecessary cath lab activations. This will involve high quality EKGs and appreciation and communication of any STEMI mimics such as a pacemaker, bundle branch block, atrial flutter or fibrillation, etc. Also, communicating to the SRC the reason the EKG was performed. Syncope seems to be a frequent setting in which field EKGs are false positive.

Heat Injury: EMS is part of a Health and Human Services Agency response group to prevent heat injury. We monitor the heat index throughout the summer. The heat index is a calculation based on temperature and humidity that indicates higher risk of heat injury, especially among those more at risk including the elderly and very young. At preset levels, there is public notification and those

without air conditioning are advised to use public cooling centers such as libraries, or other locations such as shopping centers, etc. The heat “burden” is cumulative, so a break from high heat is beneficial in reducing the chances of heat injury.

Encourage those who might be adversely affected by high heat to take advantage of cooling centers. Neighbors and family should be aware of elderly who might be at risk and make sure someone checks on them regularly to see if they need assistance.

Proposed Stroke Triage Protocol: EMS will present a draft triage protocol for acute stroke patients to BSPC today. The protocol will outline resources the hospital should have to receive acute stroke patients within two hours of symptom onset. We will keep you posted as this is discussed.

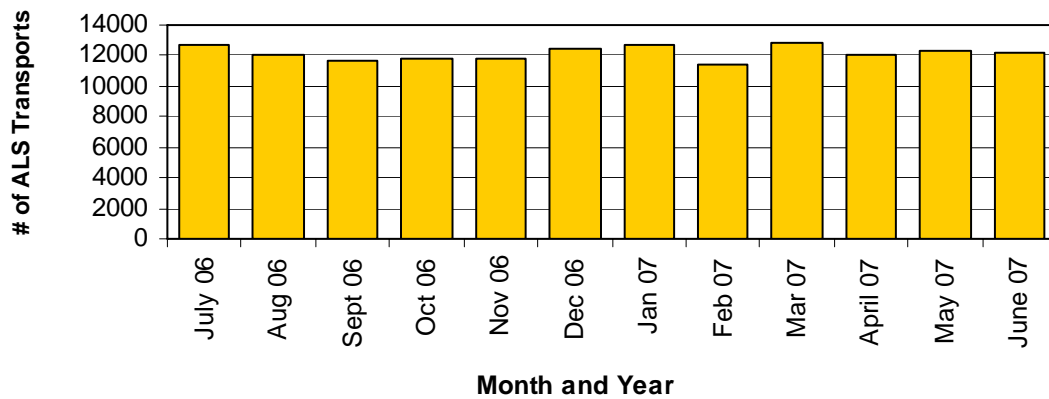
New Protocols: These are now in effect. Please let the Base or EMS know about any suggestions or comments.

Tourniquets: Tourniquets long were considered dangerous and inappropriate for field use. This is being examined again given the increased use in battlefields today. BSPC and MAC will look at this issue to see if we should consider tourniquet use in some settings. One might be a mass casualty event such as a bombing.

Agitated Delirium/Restraint: Patients with agitated delirium are at risk of sudden death. These patients frequently have taken stimulants, and may be restrained. If a patient with agitated delirium needs to be restrained, it should be done, if possible, with the patient on their back to avoid pressure on their chest or abdomen that impairs ventilation. The patient needs to be observed carefully and have ventilation and circulation quickly supported as needed. A base deviation for sedation with midazolam will be indicated in some cases. Hyperthermia is a sign of high risk for death and should be reported to the Base if noted.

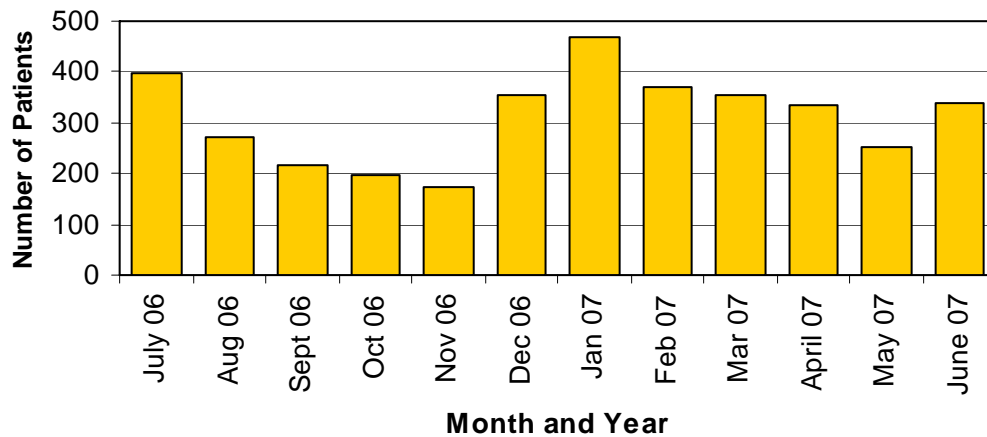
Below are the patient destination data in graphic form:

Number of ALS Transports, County of San Diego, July 06 - June 07



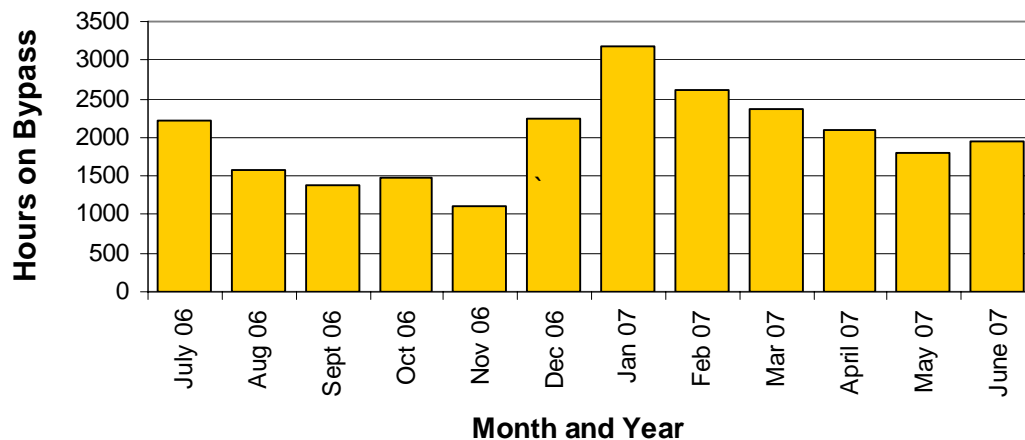
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jul 2006 – Jun 2007 Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other

Number of Patients who Bypassed the Requested Hospital, County of San Diego, July 06 - June 07



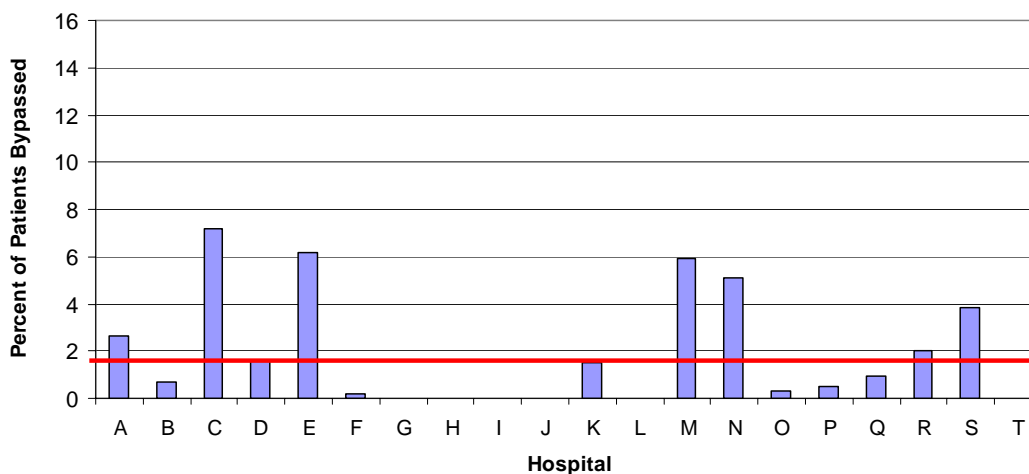
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jul 2006 – Jun 2007 Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other

Total Hours on Emergency Department Bypass County of San Diego, July 06 - June 07



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jul 2006 – Jun 2007

Percent of Patients Bypassed per Hospital, June 2007



Note: The red line represents the mean value of percent of patients bypassed per hospital, June 2007

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jun 2007 Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other